

DOCUMENT-IDENTIFIER: US 20020007733 A1

TITLE: Raw natural gas processing system and method of processing raw natural gas

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[0007] Removal and disposal of the BTEX components, as well as the aliphatic compounds with more than six carbon atoms, referred to as volatile organic compounds ("VOCs")--also known have some carcinogenic character--is customarily accomplished by two processes: vent gas incineration and carbon bed absorption. Both processes begin with stripping the BTEX components and VOCs from the natural gas stream by use of a liquid amine solution. The amine is then carried to a desorption zone. This process is similar to that described in FISCH, (U.S. Pat. No. 4,025,322 May 24, 1977).

[0008] In the vent gas incineration process, the BTEX and VOCs are combusted at temperatures in excess of 1200.degree. F. An incinerator exposes the vent gas stream to a direct flame that is produced by igniting fuel gas, providing excess air via a forced draft fan. The products of the combustion are carbon dioxide and water vapor, both of which are environmentally acceptable alternatives to BTEX emissions.

DOCUMENT-IDENTIFIER: US 20020114884 A1

TITLE: Process for applying a coating to a continuous steel sheet and a coated steel sheet product therefrom

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[0086] In each of the above one, two, and three-step prime coat process embodiments of FIGS. 3a, 3b, and 3c, the prime coat is dried and/or cured after it is applied to the pristine metal-coated steel sheet, and the dried/cured prime coat is cooled before it is recoiled. Referring collectively to FIGS. 3a-3d, and as heretofore mentioned, the prime-coated steel sheet 2c enters a drying and curing apparatus 139 where it is heated using suitable heat generating apparatus, such as a convection, induction, or infrared type furnace. One suitable method for drying and/or curing prime-coated steel sheet 2c elevates the steel sheet temperature using convection furnace technologies that are well known in the art. Convection furnaces improve drying and curing efficiency because of heat gain realized from the incineration of VOC emitted from the solvent borne coatings applied to the steel sheet surface. In a continuous high speed coating line, for example running at a line speed of about 300 to 600 feet/min. (91.4 to 182.9 meters/min.), convection curing requires substantial lengths of line space in order to properly dry and cure the fast running sheet product. Therefore, convection furnaces are not generally suited for retrofit into an existing steel mill coating line. In instances where a new coating line is being erected, however, the new hot-dip coating or electroplating line may be designed specifically to include the longer length convection type drying and curing furnaces.

DERWENT-ACC-NO: 2000-507474

DERWENT-WEEK: 200046

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TITLE: Polluted gas incinerator has incineration chamber divided into mixing and holding chambers and burner with multiple fuel injection orifices

INVENTOR-NAME: GAUTHIER, J C; PILLARD, J C ; PIZANT, J

PRIORITY-DATA: 1999FR-0000470 (January 14, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
FR 2788588 A1	July 21, 2000	N/A	036	F23G 007/06

INT-C\_(IPC): F23G005/12; F23G005/46 ; F23G007/06

ABSTRACTED-PUB-NO: FR 2788588A

BASIC-ABSTRACT: NOVELTY - The gas incinerator consists of an incineration chamber with an inlet and outlet, and a gas burner (5). The incineration chamber is divided into a mixing chamber (6) and a holding chamber (7) which extends from it and is at least 50 per cent greater in cross-section. The burner has a series of bars with fuel injection orifices distributed over the polluted gas inlet in rows with small gaps between so that the polluted gas meets the flames before it passes between the bars.

USE - **Incinerating** polluted gases, especially air containing **volatile organic** components.

ADVANTAGE - Compact in design and easily adapted to different fitting configurations.

DESCRIPTION OF DRAWING(S) - The drawing shows a lengthwise section through the gas incinerator.

Burner 5

Mixing chamber 6

Holding chamber 7

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Heat source 25

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Basic Abstract Text - ABTX:

NOVELTY - A furnace (24) has built-in heat source (25) to **incinerate volatile organic** compound gas, to which fixed heat storage unit (21) is coupled. Supply channel for volatile compound gas or purge gas, and discharge channel are individually coupled with unit (21). A distributor (20) with fixed and rotary valves, connects discharge channel and purge gas channel to heat storage unit and furnace sequentially.

DERWENT-ACC-NO: 2001-173523

DERWENT-WEEK: 200118

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TITLE: Volatile organic compound processor for motor vehicle painting shop,  
has distributor with fixed and rotary valves, which connects discharge channel  
or purge gas channel to heat storage unit and furnace sequentially

INVENTOR-NAME:

PRIORITY-DATA: 1999JP-0172289 (June 18, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 2001004127	January 12, 2001	N/A	004	F23L 015/02

A

INT-C \_(IPC): F23L015/02

ABSTRACTED-PUB-NO: JP2001004127A

BASIC-ABSTRACT: NOVELTY - A furnace (24) has built-in heat source (25) to incinerate volatile organic compound gas, to which fixed heat storage unit (21) is coupled. Supply channel for volatile compound gas or purge gas, and discharge channel are individually coupled with unit (21). A distributor (20) with fixed and rotary valves, connects discharge channel and purge gas channel to heat storage unit and furnace sequentially.

DETAILED DESCRIPTION - The processor purifies volatile organic compound by catalytic combustion such that heat of exhaust gas is recovered.

USE - For processing volatile organic compound generated in motor vehicle painting shop.

ADVANTAGE - Reduces number of components in distributor, hence the device is compact with simple structure. Reduces pressure fluctuations during opening or closing of valve and so gas leak is avoided.

DESCRIPTION OF DRAWING(S) - The figure shows outline of heat storage type combustion processor.

Distributor 20

Heat storage unit 21

Furnace 24

US-PAT-NO: 5352368

DOCUMENT-IDENTIFIER: US 5352368 A

TITLE: Aldehyde treatment system

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The highest levels of formalin sold for cold sterilization and for preserving tissue range from 37 to 50% active formaldehyde. Concentrations in this range must be disposed by a licensed hazardous waste disposal facility. In essence, **formaldehyde** at these concentrations must be either **incinerated** or recycled. Lower concentrations of formaldehyde must be handled in a similar way. Many hazardous and toxic waste contractors pour the contaminated waste water into absorbents, such as vermiculite, to convert this into a "solid", thereby making it possible to burn the material in the more numerous solid hazardous waste incinerators. However, this "pouring" and "handling" increases the facility employees' exposure to these toxic materials.

L Number	Hits	Search Text	DB	Time stamp
1	552046	vacuum or vacuumed or vacuuming or (negative adj1 pressure) or suction	USPAT; US-PGPUB	2003/03/10 16:44
2	1	("4162877").PN.	USPAT; US-PGPUB	2003/03/10 16:44
3	1	(vacuum or vacuumed or vacuuming or (negative adj1 pressure) or suction) and (("4162877").PN.)	USPAT; US-PGPUB	2003/03/10 16:45
4	1	5980798.pn. and (vacuum or vacuumed or vacuuming or (negative adj1 pressure) or suction)	USPAT; US-PGPUB	2003/03/10 16:46
5	16	("3602134"   "3649396"   "3785279"   "3891738"   "4162877"   "4393019"   "4605467"   "4684489"   "4850849"   "5078938"   "5158012"   "5195428"   "5217665"   "5246652"   "5433905"   "5629083").PN.	USPAT	2003/03/10 16:47
8	594	(voc or volatile adj1 (compound or organic or substance or resin) or (formaldehyde or phenol) adj1 emission or formaldehyde-emission or phenol-emission) with (combustion or furnace)	USPAT; US-PGPUB	2003/03/10 17:26
9	135	(voc or volatile adj1 (compound or organic or substance or resin) or (formaldehyde or phenol) adj1 emission or formaldehyde-emission or phenol-emission) with furnace	USPAT; US-PGPUB	2003/03/10 17:30
10	198	(voc or volatile adj1 (compound or organic or substance or resin) or (formaldehyde or phenol) adj1 emission or formaldehyde-emission or phenol-emission) with (incinerate or incineration or incinerating or incinerated)	USPAT; US-PGPUB	2003/03/10 18:03
11	8	("3639111"   "4136624"   "4399112"   "4913069"   "4951583"   "5112216"   "5233933"   "5562053").PN.	USPAT	2003/03/10 17:38
12	262014	\$7board.ti,ab,bsum,clm.	USPAT; US-PGPUB	2003/03/10 17:44
13	16	((voc or volatile adj1 (compound or organic or substance or resin) or (formaldehyde or phenol) adj1 emission or formaldehyde-emission or phenol-emission) with (incinerate or incineration or incinerating or incinerated) ) and \$7board.ti,ab,bsum,clm.	USPAT; US-PGPUB	2003/03/10 17:44
14	61	(voc or volatile adj1 (compound or organic or substance or resin) or (formaldehyde or phenol) adj1 emission or formaldehyde-emission or phenol-emission) with (incinerate or incineration or incinerating or incinerated)	EPO; JPO; DERWENT	2003/03/10 17:51
15	42	(formaldehyde or phenol or isocyanate or isocyanate-emission or formaldehyde-emission or phenol-emission) with (incinerate or incineration or incinerating or incinerated)	USPAT; US-PGPUB	2003/03/10 18:12
16	41	(formaldehyde or phenol or isocyanate or isocyanate-emission or formaldehyde-emission or phenol-emission) with (incinerate or incineration or incinerating or incinerated)	EPO; JPO; DERWENT	2003/03/10 18:12
17	17	(US-5433905-\$ or US-5195428-\$ or US-4684489-\$ or US-6464826-\$ or US-5112216-\$ or US-4951583-\$ or US-4913069-\$ or US-3639111-\$ or US-5749160-\$ or US-5524361-\$ or US-5602247-\$).did. or (WO-9506225-\$).did. or (JP-07019444-\$).did. or (JP-2001004127-\$ or FR-2788588-\$ or US-5527984-\$ or US-5503658-\$).did.	USPAT; EPO; JPO; DERWENT	2003/03/10 18:18